

## Abstract

SMS (*Short Messaging Service*) is messaging delivery service in mobile communications environment. In addition to effective, SMS doesn't require cost expensive so many people use this service. In delivering of message with SMS, messages security is very important. Messages which is saved, not only at the time of messages will be delivered, but also how messages at the time of delivered are not changed by someone so that messages stills original. To solve this problem needed by digital signature.

One of way to make message digital signature is uses hash function. Digital signature forming is count message digest from message with using oneway hash function. Then message digest is encrypted with public key cryptography algorithm. Digital signature which is formed placed to the message, then both are delivered by communication channel. One of public key cryptography algorithm which is often used for digital signature forming is DSA (Digital Signature Algorithm) algorithm. While one way hash function which is often used is SHA(Secure Hash Algorithm).

DSA is most suitable algorithm to be implentated in SMS which is use mobile device that has limited resource. From the experiment, DSA performance in SMS security is affected by the size of the key that used in *signing* and *verifying* and SHA algorithm.

**Keywords** : SMS, DSA, *hash* function, message digest, *digital signature*